

Date: 06/03/2015	MA: 2465.0	Title: TVOA Analytes at Lower CRQLs
Method Source: SOM02.2	Method: TVOA	
Matrix: Water		
Summary of Modification		
<p>The purpose of this modified analysis is to analyze water samples for Trace Volatiles with lower CRQLs for the three analytes Vinyl chloride, 1,2-Dibromoethane, and 1,2-Dibromo-3-chloropropane. Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in the SOW listed in your current EPA agreement remain unchanged and in full force and effect.</p>		
I. Analyte Modifications		Not applicable <input type="checkbox"/>

Analyte	CAS Number	CRQL (ug/L)
Vinyl chloride	75-01-4	0.050
1,2-Dibromoethane	106-93-4	0.050
1,2-Dibromo-3-chloropropane	96-12-8	0.050

II. Calibration and QC Requirements	Not applicable <input type="checkbox"/>
<p>The Laboratory shall:</p> <ul style="list-style-type: none"> Analyze the lowest ICAL standard at concentrations equal to or less than the CRQLs for the target analytes in Section I. Perform a five-point initial calibration to establish the linear calibration ranges on GC/MS for the target analytes in Section I. The recommended ICAL standard concentrations are at 0.050, 0.10, 0.50, 1.0 and 2.0 ug/L. Perform the Continuing Calibration Verification (CCV) at mid-point ICAL standard (CS3) concentration at the same frequency as specified in SOW. Analyze all target analytes in Section I as separate standards at the specified concentrations. Add the same non-ketone DMC specified in the SOW at the same concentrations as the target analytes in the calibration standards. Add the same Internal Standard (IS) solution specified in the SOW to the calibration standards at concentration of 0.50 ug/L. The technical acceptance criteria for ICAL and CCV RRF, ICAL %RSD and CCV %D for the target analytes listed in Section I above shall be the same as listed in Table 4 in Exhibit D TVOA of the SOW. Analyze the method blanks at the same frequency and sequence as specified in the SOW. The concentration of any target analyte in Section I in the method blank shall not exceed CRQL listed in Section I. Analyze a Laboratory Fortified Blank (LFB), spiked with all target analytes in Section I at the concentrations of 1xCRQLs. The LFB must be prepared using the method blank matrix specified in Section 12.1.2.1 of Exhibit D, Trace Concentrations of Volatile Organic Compounds Analysis; and must be analyzed after each method blank associated with the submitted samples. The Percent Recovery (%R) for the LFB analytes shall be 65% - 131%. If the LFB %R is not met, the LFB and all associated samples must be reanalyzed at no additional cost to EPA. 	

- Add the non-ketone DMC solution to all samples, blanks and LFB samples at the mid-point ICAL standard concentration of 0.50 ug/L. Add the same IS solution to all samples, blanks and LFB samples at the same concentration that is added to the calibration standard.
- %R for any of the associated DMCs to the target analytes Section I shall not exceed the QC limits. The IS technical acceptance criteria specified in the SOW for the TVOA full scan analysis shall remain in effect. If any of the associated DMCs or IS technical acceptance criteria cannot be met for samples, reanalysis of the samples shall be performed at no additional cost to EPA.
- All other technical acceptance criteria for ICALs, CCVs, blanks and samples remain the same as specified in the SOW.

III. Preparation and Method Modifications

Not applicable ☐

The Laboratory shall:

- Perform a MDL study for the target analytes in Section I and make the results available upon EPA's request.

IV. Special Reporting Requirements

Not applicable ☐

The Laboratory shall:

- **Report the CRQLs listed in Section I, adjusted according to the equation listed in Exhibit D, even if the level of the corresponding target analytes in the low-point calibration standard is below the CRQLs listed in Section I.**
- Modify all applicable hardcopy forms to include the additional analytes in Section I and the associated DMCs and ISs. This includes Forms 1, 2, 3, 6, 7 and 8 as appropriate.
- Report the LFB with the EPA Sample Number, VLFB## (where ## can be alpha numeric characters) and the QC Type "Laboratory_Control_Sample" in the electronic deliverable. The LFB (VLFB##) shall be reported on a modified Form 3A. The spike analytes, spike analyte concentrations, Percent Recovery (%R) and QC limits shall be included on the form.
- Include the original and background-subtracted spectra of the associated peak for each target analyte in Section I from the low point ICAL standard in the data deliverable.